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ABSTRACT

Suggestions for communication activities in developing new and ongoing water programs are offered in this handbook. It is one in a series of UNICEF publications that aim to inform a variety of audiences on life quality concerns. Specific objectives in this guide focus on providing information and education in the use, transportation, storage, and processing of water. Topic areas which address water quality needs include: (1) the concept of safe water (discussing the meanings given to the categories of clean and unclean water and the importance of understanding theories of disease transmission); (2) audience identification and analysis (identifying the types of water that are of interest to different community groups and suggesting ways of improving water supply and sanitation); and (3) audiences outside the community (emphasizing the need for co-operation and assistance from engineers, technicians, and business people). A color coded, fold-out data checklist for program planning (listing the types of required data and indicating the implications of program design) conclude the document. (ML)

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HANDBOOKS IN COMMUNICATION AND TRAINING FOR CSDR

NO. 2

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**HANDBOOKS IN COMMUNICATION
AND TRAINING FOR CSDR**

NO. 2

COMMUNICATION FOR WATER



PSC and Training Section

**UNICEF
East Asia and Pakistan Regional Office
Bangkok, Thailand**

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FOREWORD

This brief handbook on Communication for Water Programmes is primarily for use by Programme Communication (PSC) officers and programme and project officers with special responsibilities for water programmes.

It is designed to assist them in developing communication activities for new and ongoing programmes, and in convincing their colleagues of the need for communication activities as and when the need arises!

Its main objective is to suggest questions which should be posed and answered when planning water programme communication activities. For ease of reading and writing, most of our illustrations relate directly to programmes for improving water supply though we recognize, of course, that drinking water will not be safe unless other aspects of personal and environmental hygiene are also improved.

As this paper is one of a series it would also be helpful to read some of its partners which deal with different aspects of the same activities and use different illustrations.*

Like its sisters, this paper has been written in the UNICEF context and is primarily for use by UNICEF colleagues. It is hoped, however, that the modes of thought and expression are not so obscure as to be incomprehensible outside this Agency. Comments and suggestions for improvement from any source are, therefore, most welcome.

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June 1985

* See list on back cover of folder

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Introduction

Despite the vast resources being spent by development agencies, both national and international on installation and improvement of water supply systems of all kinds, communication activities for proper utilization and maintenance of those systems have generally been neglected. For UNICEF at least this statement holds true if we compare communication for water programmes with communication activities for other major areas of development interest, such as nutrition or immunization. Why should this be so?

A partial answer may lie in the fact that as water is undoubtedly a basic human need there is some residual feeling amongst those involved in developing water supply systems that one does not need to **promote** its use. In most cases, water is something which people already have and want more of; they recognize their own need. In this sense, water programmes are unlike those development activities designed to introduce totally new concepts and behaviours such as immunization or family planning programmes but could still be compared with nutrition programmes which have not been so neglected by the communicators. Most people have food and need more food but we are also concerned with the quality of food eventually consumed. In our water programmes similarly we are concerned not only with improving quantities of water available but also with the safety of that water from the health point of view. The achievement of the consumption of **safe** water would usually involve some major behavioural changes by the consumer.*

** It is not appropriate here to present the discussion relating to the respective importance of water quality and water quantity. See Box on page 7 for some reflections on this issue.*

The undisputed fact that everyone needs water is not then sufficient to account for the relative neglect of communication and education activities. Perhaps a more fundamental reason for the neglect of the so-called "social aspects" of water programmes is that almost always the people responsible for installation of physical facilities -- perhaps located in the Ministry of Public Works, or Interior, or Rural Development -- have little if any working contact with health education or primary health care programmes. Sometimes at the village-level their activities are or can be rationalized, but harmonization of social and physical aspects of water supply programmes at

an earlier stage of programme development would help to avoid some of the grosser errors of installation still committed and ensure maximal utilization of the facilities when installed.

The condition of mutual neglect between hydrologists, drillers, engineers, hydrogeologists, on the one side, and the educators, and communicators, on the other, could be remedied by each party acquiring more knowledge, understanding and respect for the other's field of expertise. The following discussion may make some contributions to more co-operative endeavours.



- Achievement of the consumption of Safe water requires major behavioural changes from the consumer

THE CONCEPT OF "SAFE" WATER; AND SOME OTHER WAYS OF THINKING ABOUT WATER

When we begin to consider who is the audience for our water communication programme it quickly becomes obvious that rather than being a simpler task than that involved in audience analysis for other development programmes it can indeed be even more complex.

As we have discussed extensively in earlier handbooks, **we are concerned in all our programmes with a variety of audiences who interact with each other and therefore impinge on each others' behaviour and decisions.** Even so it is usually possible to pinpoint, for UNICEF programmes at least, that the mother is our focal and ultimate audience who will, for example, take her baby for vaccination, learn to mix and administer ORS correctly and so forth. If the

objective of our Water Supply Programme is, however, that water used by children and mothers should be safe, then **every person using the primary water sources and the containers used to transport, store, process, and serve that water is involved, and must be reached**

Before going more deeply into audience analysis, however, we must examine our basic "product" -- **safe water** -- and ask ourselves what it means to others. We tend to bracket those words together very easily but the concept of **safe or clean water** or even **drinking water** may have as little meaning to a village audience as did or does the concept of **family planning** to a population which has not been exposed to such programmes.



Every person involved in collecting, transporting, storing and processing water must be reached

Studies in Bangladesh, Guatemala Lesotho and the United States have failed to demonstrate that improvements in water quality had any marked impact on the diarrheal disease incidence quality of water alone is unlikely to bring all the benefits expected. Especially for the key objective of better health, two other factors need to be considered : quantity of water used and education.

With the rural people, some of the basic points of personal hygiene must be instilled : i.e., discontinuing use of contaminated water for drinking, cooking, washing and bathing, boiling of contaminated water if it has to be used, storage of water, and basic sanitation requirements in handling food products and disposing of waste products. The effectiveness of education will ultimately decide whether all the benefits of community water supply programmes are realized. Unfortunately this simple lesson has still not been fully grasped by most national and international agencies dealing with community water supply.

Let me illustrate the point briefly, using the example of my home town in India, Balasore, where standpipes and some house connections have been provided in recent years.

- *People have no information on how to store water, so that contamination takes place at home.*
- *Although they may have safe water at home, people think nothing of drinking from the nearest water source, regardless of its condition, when they are away from home and thirsty.*
- *Small children, who normally have the highest incidence of diarrheal diseases, often are not taught to use the improved water supply. Water collects at the standpipes, with the result that pools of stagnant water (a common sight in most developing countries) become breeding grounds for mosquitoes and other insects--Balasore now has more malaria than before, and has in effect traded waterborne for mosquito-borne diseases!*
- *When the system breaks down, as it does frequently, people resort to contaminated sources--and are now more vulnerable to infection after having used clean water for a time.*
- *Provision of standpipes has not increased the volume of water use per capita.*

In short, providing quality water is only the beginning in terms of the ultimate goal of improved health. There must be enough of it, and people must be educated in its use. While these aspects of the problem must be primarily the responsibility of national and local authorities, they affect the plans of international agencies as well.

Water for the Third World, by Asit K. Biswas, Foreign Policy Review 1982.

Whether or not people require water used for drinking to be "clean" or "safe" on our terms depends, of course, on their sharing our understanding - or the blind belief of the well-taught! -- that organisms in dirty or contaminated water cause disease. Most specifically that drinking water contaminated by faecal matter can cause diarrhoea that kills.

Many societies do, of course, have theories of germs and disease transmission, which may sometimes be similar to ours though leading to very different behavioural conclusions. Hence, for example, **the common practice of defecating away from the house and compound, on the beach or the river bank in order to carry faecal matter away from the living area.** Understood in these terms, a sanitary latrine located inside the house is a very insanitary idea.

Some people believe that faeces cause disease but that a baby's faeces are harmless. Muslim societies strictly separate the functions performed by the left hand (anal cleansing) and the right (eating), and so forth. **It is vital, therefore, to locate and understand such theories of germs and disease transmission and to recognise their effects on behaviour in order to work within and build upon them for our own education and communication programmes.**

The communities with which we are concerned may not then have categories of clean and unclean water which would correspond to our understanding of those terms. In societies where water is scarce it would be a luxury to discriminate. Other people, however, who traditionally have not experienced great water shortages may categorize their water according to use for drinking, washing, laundry and agricultural or other purposes. These distinctions may be made according to the different sources of water and the consequent perceived differences in taste, colour, "strength". The question of taste and colour is a very important one which when ignored has been the downfall of many drinking water supply programmes. **Often water which is most "unsuitable" from our point of view -- being shared by wallowing buffaloes, for example, or with a high soil content -- is the preferred drinking water.** Water from newly dug and protected wells which does not possess the preferred qualities of taste and colour may be rejected.

In summary, where not in total scarcity water is often categorized according to preferred use and/or preferred source which may also vary according to season. It is as important to understand these categorizations as it is to determine whether or not indigenous theories of disease transmission are currently reflected in water use and appraisal of its worth.

AUDIENCE IDENTIFICATION AND ANALYSIS: WATER INTEREST GROUPS WITHIN THE COMMUNITY

So far, we have talked about the village community as a monolith but for water supply programmes as for other development activities this is rarely the case. It is equally important for overall programme and for programme communication purposes to understand which types of water are of interest to different groups in the community and what their respective responsibilities and decision-making powers are. A survey conducted under DANIDA auspices in Tanzania revealed, for example, some interesting facts about "the divergence of male and female interests in the villages". It was ascertained --

were not eager to contribute financially to schemes that would only serve domestic needs and not allow them to increase their cash income. The types of water most frequently mentioned in this context were for livestock keeping and irrigation. While both of these make a high demand on water **quantity** (which cannot be met from shallow wells), neither require necessarily **clean** water. It would obviously be a waste of resources to provide clean water for such purposes so that one would rather have to think of parallel solutions for domestic and non-domestic purposes. Through the same survey the

Women might identify a water supply project as the first priority as they are the ones that have to walk long distances to fetch the water, while men may not feel the need for a water supply system. The same is true with sanitation facilities. A survey in Bangladesh carried out in December 1976 revealed that the sanitary latrines were primarily used by women, as it is they who feel the greatest advantage in having a latrine installed close to their homes. In a few cases, two latrines can be found in one household, in which case, one is used by the male and the other by females. In general, however, males and children hardly use latrines.

(Reference: People, Water and Sanitation, UNICEF, Assignment children 45/46, 1979. p. 141)

perhaps not too surprisingly -- that "women are in charge of domestic water supply, and have to queue at taps or to walk long distances with bucket". (One could develop an argument about the report's use of the term "in charge"?). They are also the main users of domestic water for cooking, washing, etc., and have, therefore, a vested interest in improving domestic water supply. However, as their access to cash is minimal they can hardly be expected to make financial contributions to operation and maintenance. The village leadership is dominated by men and men also control the cash income in the household and the village. During the survey, village leaders made it clear that they

researchers-cum-communicators ascertained the women's needs for washing slabs, the numbers needed, their location, height and so forth."*

This report is quoted at length to illustrate the **importance of audience analysis and of getting communication from those various audiences as a basis for programme design**. Whilst hopefully after some exposure to communication about the benefits of clean water the men would be more concerned with the

* Reference: *Institutionalization of a Shallow Wells Programme under Tanzanian Administration (Draft Report BRALUP Seminar, October, 1981.)*

quality of domestic water supply, the "entry point" for their involvement should be their current interest in water for agriculture and income earning.

This report incidentally also points a nice warning against arbitrarily deciding how many water supply activities should go under a given programme umbrella. Often, and usually according to agency interests and capabilities a water supply programme is overtly concerned only with drinking water, or only with water for irrigation. But if we take audience interests and needs as our basis this may make very little sense. Similarly, if we consider the community's health

type, location, number of improvements to be made or new facilities installed. These factors also affect the type, size and source of contribution expected from the community to the installation and maintenance of new facilities. And in this regard we must look not only at existing patterns of ownership of water resources and facilities but also at the technological skills available in the village, co-operative and credit systems, preferred spending patterns and average household incomes. It might be easier in the short-term to import porcelain fixtures from Europe as has happened in Tanzania, for example, but this is not a solution for the long-term.

Women as water drawers can provide important information, e.g. in the Surigao rural water supply project in the Philippines, the women told the engineers the short-cut trail leading the spring source to the village. The engineers found that the amount of pipes and fittings requested originally for 11 systems could be used to extend service to eight more villages.

(Reference: *"Rural Water Supply Project of Surigao City, the Philippines", Water and Sanitation Team, UNICEF, New York, September, 1983.)

as our goal the common separation of water supply and sanitation activities may make impossible the achievement of the projects ultimate objectives that is to say the consumption of safe water.

What are some of the other factors we should be aware of within the community itself?

In most communities where we work water sources already exist but need to be improved. But these water sources may already have owners who bequeath them to their heirs along with other property. Access to and use of sources may differ according to kinship to the owner, or according to rank, caste or gender. Such factors must necessarily affect programme design -- the

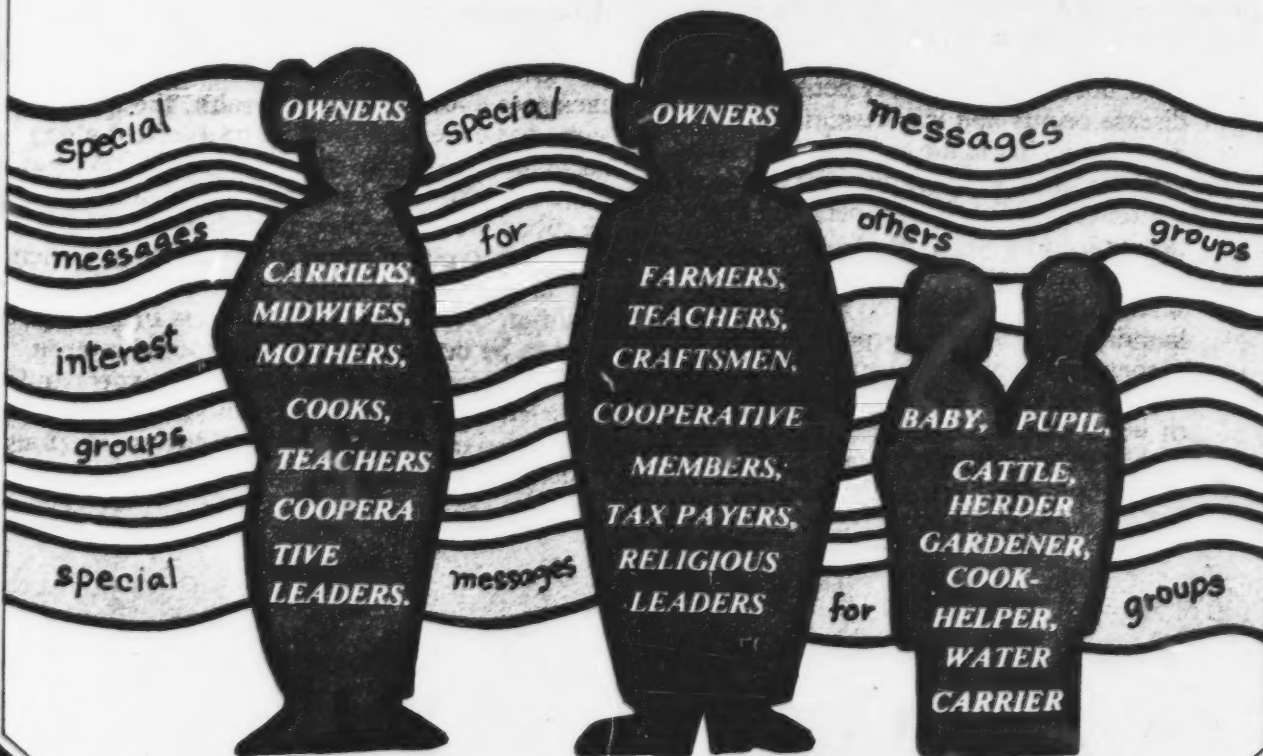
The development planners should also, of course, look into the possibilities of local manufacture of, for example, pumps and parts of pumps: and/or of financing by government subsidy, local credit systems, or individual families of parts to be bought locally. It is to be borne in mind, however, that only if people are convinced of the benefits of the pump or other facilities installed will they spend any of their resources to maintain and replace them.

As has been pointed out by others working in this field the community may be interested in improving water and sanitation facilities for other than health reasons. Women who carry water from the well to the kitchen several times a day may be interested in re-location of that well

BASIC MESSAGES ON WATER/HEALTH LINKAGE, PERSONAL HYGIENE, DISPOSAL OF FAECES AND GARBAGE.



SPECIAL MESSAGES FOR DIFFERENT INTEREST GROUPS



to a more convenient or private location: the installation of a pump may save energy for other things. Similarly, the motivation for installation and utilization of a sanitary latrine may be perceived improvement in status rather than health, or because it enables correct distance to be maintained between people who should not defecate in the same place.

Again, we should be aware of and build upon these interests in promoting improved water supply and sanitation in the community.

In reviewing the preceding discussion it becomes clear that if we take the provision of **safe** drinking water to the community as our objective we are involved in a very complex task. **The accomplishment of this objective involves not only the change of existing facilities but also the network of behaviour and beliefs which has developed around the ownership and use of water and which involves every person.**

What then are some of the first questions the **programme communicator** would pose to and about that community in developing with other colleagues a scheme for improving the quality of water consumed there

- . How does the community consider that disease occurs and is transmitted?
- . Are theories of disease and its transmission reflected in water use, disposal of faecal matter and other wastes, personal and family hygiene
- . Is water categorized as clean/unclean; safe/unsafe; for drinking, washing, laundry, agricultural purposes; according to source; taste, colour?
- . How is access to water and management of water of different types arranged within the community?; What are the different interest groups?; who is

responsible for which water-related tasks? (carrying water for domestic use; irrigation of vegetable gardens; water for cattle, etc.)

- . Is water "owned" by the community; by individuals; a "god-given" right?
- . How is water transported from source to stomach?
- . How is disposal of faeces and other waste carried out by the community?; are different practices observed by different groups e.g. men, women, children?

The answers to these questions -- each of which may require some intensive questioning and observation -- would provide some basic "social" data for programme design. Already we can see to what extent our basic concept of clean or safe water is shared by our primary audience; how to build upon indigenous theories of disease and its transmission in promoting changes in water use; and which community groups should be approached in relation to different water facilities and schemes. This is to say we can draw the broad outlines of community audience identification and message development, for our project.

Everyone in the community needs the basic messages about water and health, though these same basic messages will be transmitted along different channels to different groups. As was discussed above the audience can also however be subdivided according to their interest in particular types of water and according to their role in installing, maintaining and using the new facilities. Additional different sets of messages need to be developed for these special interest groups e.g. village craftsmen, land-owners and those within the community who will convey the message to others -- teachers, midwives, religious leaders for example may be valuable channels.

A crucial aspect of the mass parasite control programme as implemented by the Japanese Organisation for International Co-operation in Family Planning (JOICFP) is that it stimulates the health educational process at both the individual and community levels. The parasite control programme as implemented through the integrated projects makes the individual aware that he can take action to improve his health condition and to sustain that improvement ; installation and proper use of sanitary latrines are two of the health maintenance mechanisms. Furthermore, the mass parasite control strategy as employed by JOICFP in its integrated programmes creates the awareness amongst the community that as far as parasite control is concerned no man, woman or child is an island. An individual's unsanitary behaviour is a hazard to all who share his environment, and each is equally responsible for community health.

The first step is to convince the community that they are suffering from a parasitic infection which is deleterious to their health status, and therefore affects both mental and physical productivity and capacity to work. This in itself, of course, pre-supposes that the village level agents of the project already have the confidence of the community who will produce their stools for examination. Obviously, it should be easier to convince communities of the presence and problems or parasites where the infection rate of such a worm as ascaris is very high. But it has often been reported that rural communities in Asia and elsewhere have a very high tolerance of parasitic infection, regarding the presence of a few parasites as an ordinary fact of life. In some countries, it is felt that a moderate worm burden in a child assists in or indicates growth of that child. The first step in the JOICFP-sponsored integrated parasite control programme has usually been collection and collective examination of the community's faeces. The community is allowed to examine the specimens through microscopes to see the eggs in the stools. This activity must, of course, be promoted through an agent who is very credible with the community and requires from the outset a great deal of community co-operation.

(Reference : Briefing paper prepared by UNICEF/EAPRO for Asian Parasite Control Conference, Seoul, October 1982.)

AUDIENCES OUTSIDE THE COMMUNITY

Beyond the village the audiences for our communication will, analagous to other programmes, be those who are or who should be involved in carrying the message. To reach these groups and achieve their co-operation will need special promotional efforts by programme communication staff.*

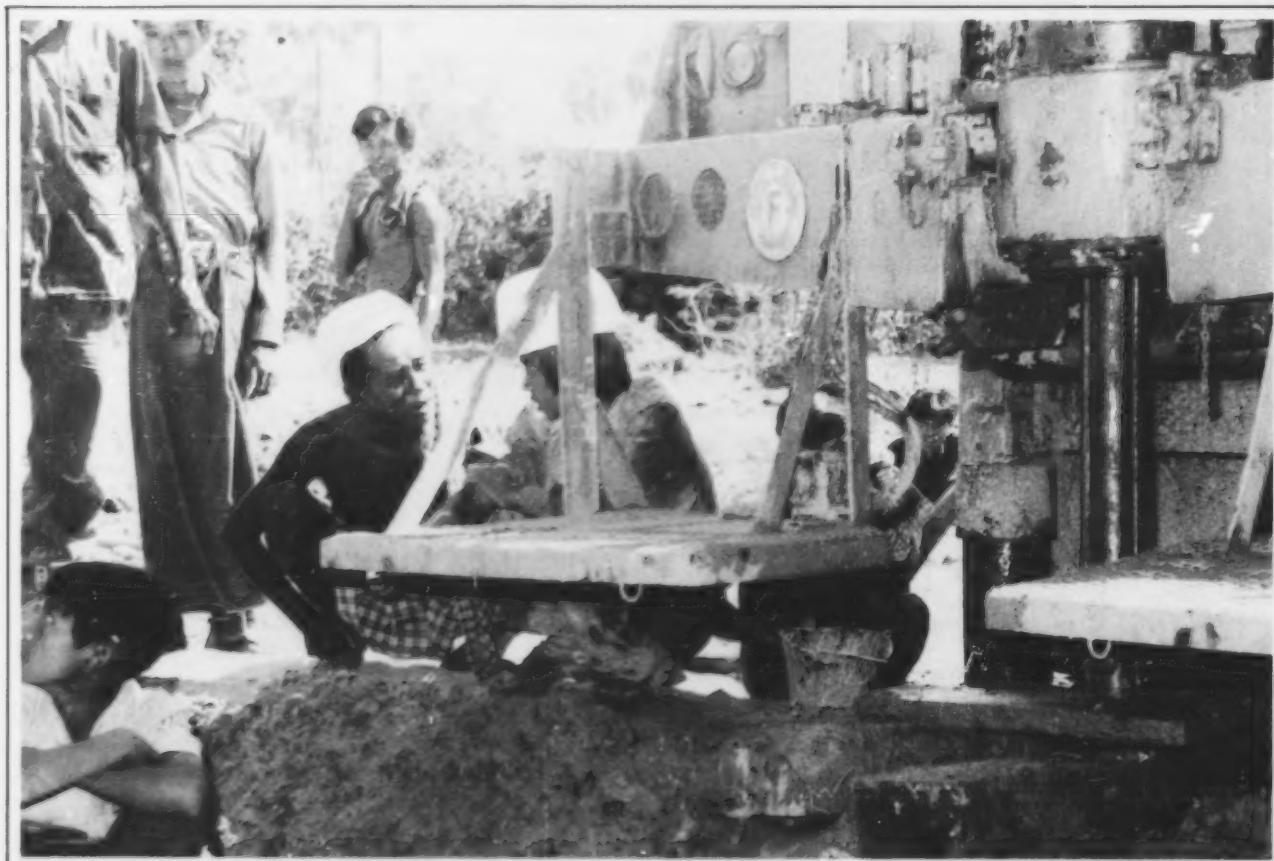
Again, the health establishment at all levels - educators, and others should be a primary instrument for implementing this project. It is particularly useful if they can incorporate "water" messages into other activities.

Promotion of ORS, for example, should go hand-in-hand with discussion as to the prevention of diarrhoea arising from insanitary habits. Parasite control programmes can also act

as a useful entry point for education programmes as to how this should be avoided. The linking of parasite control with education to promote clean water and sanitary habits in the typical JOICFP programme, for example, illustrates an important principle of communicator credibility.* If a person can actually help by doing something practical for you -- like ridding you of your worm-burden then you are more likely to believe the things he tells you on other issues more difficult to grasp -- such as the fact that apparently clear water may be dirty and dangerous.

** Please also refer to companion handbooks see back cover of folder.*

*** See box page 12 (JOICFP*)*



In some projects engineers have been the best communicators.

In some successful water programmes (eg., Livulezi, Malawi) the **water engineers have also been the communicators, explaining every stage of the operation with the community** who also recognized their need for an improved supply. Indeed where the community in investing time, labour and money -- as was the case with the gravity piped water project in Malawi -- is required to perform a major "act of faith" the credibility of the agency which is proposing to change totally established water habits is very critical. The merging of roles of engineer and communicator is unusual, perhaps most often paralleled in smaller NGO schemes, where the "doers" being close to the community are almost always communicators also.

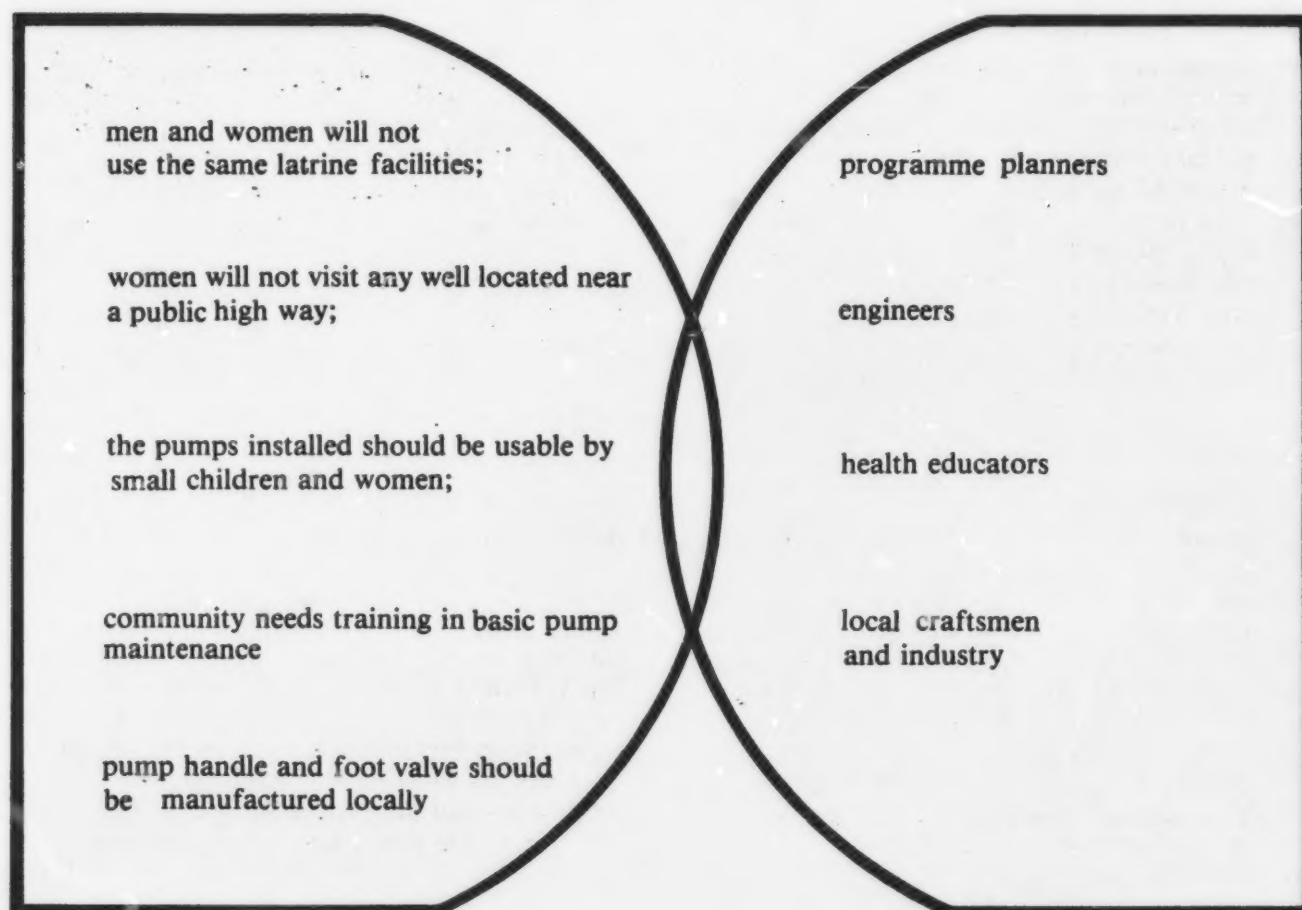
In general, we can state that a major important effort to which the programme communicator should contribute is in bringing-together by providing information and by other promotional activities the various people outside -- as well as inside -- the community who have different but equally indispensable contributions to make to the programme. As mentioned above, it is very common to find that the persons responsible for physical installation of wells, pumps, and pipes, particularly in large-scale or urban schemes have no working contact either with officials who would be responsible for training the community to maintain and repair the new facilities, or with educators and communicators responsible for health, hygiene and sanitary education.

Another important bridge to be built is between the technicians mentioned above and "business", or commercial concerns who ought to become involved either in helping the community to assist in financing the installation of new systems - as for example - with agricultural banks; or local craftsmen and industries who might become interested in producing and marketing necessary spare parts for pumps, for example.

We must hasten to say at this point that we do not think that the programme communicator has all the answers to problems of lack of co-ordination. There are many reasons why people who should co-operate don't do it; external and domestic politics, tradition, location, time, budget, red-tape, and simple incompatibility. However, people also fail to co-operate because they do not know enough about each other or each other's work. They are then ignorant of the ways in which they can facilitate and improve each others activities. The programme communicator along with other programme staff has a necessary role here in determining between which groups of people "bridges" need to be built - engineers, health educators - and in determining the communication and information content of those bridges or the messages which should flow between these groups

Programme Data

Data Users



We have attempted in the accompanying checklist to systematize our "communication" questions, and to suggest some complementary data needed in developing the programme and some of the possible implications for programme design. It is crucial that the communication officers the programme officers and the engineers hydrologists and others involved work together in developing a water supply programme based on a thorough understanding of the audiences' characteristics and needs

* * * *

CHECKLIST OF DATA NEEDED FOR PROGRAMME PLANNING

Background

The project aims to provide the community with a safe source of drinking water by protecting existing shallow wells and installing simple PVC handpumps with wooden handles. The village will be expected to make the wooden handle and to pay for the cement (\$15 per well) to cover the well. The PVC pump (approximately \$25 on the market) will be provided free of charge in the project area. The foot-valve which is liable to need replacement every 6 months with normal wear is available on the market for (\$5). The pump is expected to be able to supply 30 litres of water per person per day for about 30 persons over a 6-month period without further maintenance.

What "social" data do we need to collect before we can refine the project further?

CHECKLIST OF DATA NEEDED FOR PROGRAMME PLANNING (Indicative not exhaustive listing)

Questions asked/Data needed by Programme Communicator	Complementary Data	
1. Beliefs related to Water/Health • Is the concept of "clean" water meaningful to the community? How is water categorized by the community? • What concepts of disease and its transmission are prevalent in the community? Do these have any implications for water use and sanitary practices? • How credible are health personnel indigenous and official?	• Health profile of community especially in relation to water-related diseases; and children. • Health service infrastructure. • Other health interventions to which community subjected (e.g. family planning, MCH programme, ORS promotion, parasite control). • Indigenous health-seeking behaviour.	Health profile of community developed for programme planning. Use of health service infrastructure, promotion, health training, etc. prior to implementation.
2. Water Usage, Management • Rights to water -- "God-given", "government-given", etc. • Ownership of water sources; differential access to those sources. • Seasonal variations in water source. • Preferred water source for drinking/laundry/washing/agricultural use. • Time taken in/distance travelled for water collection. • Water storage, water use practices.	• Basic demographic data; expected population growth; stability of community in area. • Data from engineers, hydrologists as to technologically feasible solution(s) and alternatives by season. • Expected role of government/agency/community in installation and maintenance.	• Determine the scope of the problem (seasonal). • Determine the role of the community in the "ownership" of the water source. • Determine the role of the community in the management of the water source. • Determine the role of the community in the installation and maintenance of the water source. • Allow for the role of the community in the possible solution of the problem.

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• Perceptions of need for improved sources, need for improved sources in relation to other needed improvements in their socio-economic condition.		
3. Community Structure • Survey of village "government" structures, official/unofficial. • Identification of different interest groups with respect to water and sanitation. • Key influentials and leaders within community. • Community liaison persons with the outside world. • Decision-making processes within the community	• Analysis of structure, staffing and organization of government units involved in water supply and sanitation projects • Data on national NGOs active in the area.	
4. Community Economic Patterns • Means of subsistence. • Preferred spending patterns. • Co-operative and credit systems. • Differential economic roles. • Average household income (cash and kind). • Skills available at village level. • Tradition of co-operative labour.	• Macro-economic data for area. • Expected costs of installation and maintenance of facilities. • Expected maintenance needs at village level. • Local availability of simpler spare parts, cost of such. • Possibility of developing local manufacture.	
5. Education and Communication Behaviour • Formal and non-formal communication systems within the community; between the community and the outside world. • Credibility of different media (Traditional/Modern) for different tasks (entertainment, development education, etc.) • Audio-visual perceptions; literacy rates; language/dialect. • Differential access to media. (Traditional/Modern)	• Media infrastructure beyond that community and leading into it. • Ongoing communication activities of relevance (e.g. ongoing health campaign). • Locally available equipment and materials suitable to community conditions.	